Curriculum Vitae of Matthew Nugent

+44 (0)7861110909 contact@mattnugent.co
Cranfield University

I have been interested in motorsport from an early age, inspired by my family's motorsport activities. Early on in high school, I realised that I wanted to pursue a career in motorsport, and this steered me towards studying mechanical engineering and continuing my studies with a motorsport engineering MSc. My aim is to start my professional career in a successful and cutting-edge motorsport business in the UK. I have been fortunate enough to have worked on challenging engineering projects at university. Activities that I have been involved in include a number of leadership roles which I feel that I have excelled in and have personally enjoyed. I have also been required to speak to audiences and feel comfortable addressing a room.

KEY ACHIEVEMENTS

- Senior leadership team member for University of Canterbury Motorsport team, overseeing the design, build and testing of an entirely new concept resulting in a reliable Formula Student single seater race car that was second fastest overall, and placed third in the design event at FSAE Australia.
- Accepted to study a MSc in Advanced Motorsport Engineering at Cranfield University.
- Elected by peers to be the cultural chair on the College House Students Association House Council.

EDUCATION

MSc Advanced Motorsport Engineering: Cranfield University, Cranfield, UK (October 2019 - September 2020)

- **Modules**: Motorsport Electronics and Data Acquisition, Composite Structures for Motorsport, The Business of Motorsport, Motorsport Aerodynamics, Motorsport Vehicle Dynamics, Motorsport Powertrains, Computational Fluid Dynamics for Motorsport, Motorsport Structural Analysis.
- Will be involved in a group design project.
- Will complete an individual master's thesis.

BE (Hons) Mechanical Engineering (2.1 degree (grades equivalent to UK first): University of Canterbury, New Zealand (February 2015 - November 2018)

- **Final Year Modules**: Honours Research and Development Project, Computational Fluid Dynamics, Mechanical Systems Design, Linear Systems Control and System Identification, Aerodynamics and Ground Vehicle Dynamics, Engineering Product Design Analysis, Engineering Management and Professional Practice for Mechanical Engineers.
- **Golden Key International Scholar**: Recognition for being in the top 15% of the cohort.

WORK EXPERIECNE TO DATE

Motorsport Electronics Ltd: Auckland, New Zealand – Engineer (February 2019 - June 2019)
Motorsport Electronics Ltd is New Zealand's leading motorsport electronics supplier.

- Detail design work of the Toyota Gazoo Racing FT 60 wiring loom for the Toyota Racing Series. This work was completed to a tight timeline due to late confirmation of the project.
- Design of new products for manufacture including paddle shifters and temperature sensors. Gained experience designing for manufacture as well as navigating the process of using Chinese machine shops.
- Component testing and fault diagnosis using PC CAN interface.

Giles Motorsport Ltd: New Zealand – Tyres and Fuel (January 2019 - February 2019)
Giles Motorsport Ltd is a regular front runner competing in the Toyota Racing Series.

- Responsible for tyres and fuel for four cars, working with engineers to ensure the correct tyres were mounted and available when required. Learnt to be proactive and develop methods of tracking tyres.
- Responsible for maintaining rule compliance regarding tyres at all times.
- Responsible for the presentation of the wheels and garage, from which I gained an appreciation for the importance of presentation in motorsport.

University of Canterbury Motorsport: Christchurch, New Zealand – Lead Powertrain Engineer (March 2017 – December 2018)
University of Canterbury Motorsport is the Formula SAE team of the University of Canterbury.

- Promoted to Lead Powertrain Engineer in November 2017.
- Management of powertrain sub team and oversight of all powertrain components. Regular sub team meetings and one on one interaction resulted in a cohesive team and a reliable, rule compliant outcome.
- Design, build, and wiring of an engine dyno rig for a new engine platform.
- Design of final drive system. FEA was used to develop the concept, balancing manufacturing cost and weight.
- Design and manufacturing of the electrical systems (wiring loom, engine management, data logging, gear shifting). Taking the time to learn properly resulted in a reliable, professional quality product.
- Engine tuning.
- Lead engineer at the track.

Gibbs Amphibious Technologies Ltd: Auckland, New Zealand – Workshop Intern (November 2016 – February 2017)
Gibbs Amphibians are world leaders in developing high speed amphibious technologies.

- Repairs and maintenance of existing vehicle fleet – predominantly Quadskis and Aquadas.
- Practical work on development vehicles including assembly and composites.

SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

- **IT Skills**: Confident IT user. Experienced with Solidworks, Matlab, Microsoft office suite, LaTex, and knowledge of AVL Boost, ANSYS Fluent, CATIA V5, MoTeC i2.
- **Volunteering:** Volunteer lifeguard at Surf Life Saving New Zealand 2010 – 2019, regularly contributing 100+ active patrolling hours in a season. Highlights include rescue of the month January 2015, Patrol captain since age 17.
- **Sporting and Individual Interests**: Started an Inflatable Rescue Boat racing team at my surf lifesaving club, including securing funding for a new boat and engine. Keen guitar and bass guitar player, previously playing in covers bands performing at large university events. Travel enthusiast. Ex kart racer. Keen surfer, ocean swimmer, and regular gym goer.
- **Certificates and Awards:** Qualified to prehospital emergency care first aid NZQA 25412. Duke of Edinburgh Bronze award.
- **Extra-Curricular:** Elected cultural chair of the College House Students Association House Council, responsible for all cultural aspects of the house as well as liaising with staff regarding all student matters. Social football team member 2018.